Crime Thrillers Binge-Watching Behaviour: Association with Personality Traits and Impulsivity

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Original Article

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Abstract. Due to negative consequences associated with binge _watching involving crime thrillers it has become a topic of scientific debate. It has been mediated by biopsychological parameters under the impact of cognitive and affective aspects. To determine the role of Personality traits and Impulsivity in individuals with Crime thrillers Binge-Watching Behaviour. The present cross sectional study has been done through online digital media. The study recruited 160 individuals with administration of information questionnaires to get their demographic details, pattern of crime thrillers series watching, behavioral traits and behavioral impulsivity. Crime thrillers binge-watching was reported by 80 participants (50%) with female predominance (52.9%) and a mean age of 25.2(S.D.2.4) years. Crime thrillers binge watching was found to have 6.31 as the mean maximum number of episodes in a single sitting. However, no significant differences were present with regard to demographic profile of crime thrillers binge watchers as compared to crime thrillers non-binge-watchers (p value >.05). Individuals with crime thrillers binge watching were having higher score involving neuroticism and lower score involving openness and agreeableness in comparison to non binge watching of crime thrillers with statistical significance (p value <.05). Impulsivity (BIS-15), mean (SD) score was found to be higher 30.33(4) in crime thrillers binge _watching as compared to non _binge watchers. Loss of self Control subscale score was found to be higher in female gender 29.5 (mean score) as compared to male gender indicating negative consequences in female gender with more severe loss of control. The study found Impulsivity and personality traits seem to be important pathways for crime thrillers binge watching, neuroticism is higher in binge watching while conscientiousness seems protective factor.

Keywords: Personality Traits, Impulsivity, Crime Thrillers, Binge-Watching Behaviour

Introduction

There is a tremendous leap in the availability of high-quality TV shows at affordable expenditures in the last 10 years. The viewer perspective regarding TV has also changed throughout time (Jenner, 2015). Due to this; the TV series has become a highly complex and thrilling narrative organization to keep the audience highly attached (Ahmed, 2017). Many people might involve in imaginary and parasocial relationships with television characters for the experience of belongingness. As a result, crime-thriller web series and serials are viewed in a sequence of more than one episode in a single sitting. Watching > 2 episodes in one sitting.
is considered as a criterion for binge-watching in many studies (Walton-Pattison, Dombrowski & Presseau, 2016).

Due to negative consequences associated with binge-watching involving crime thrillers it has become a topic of scientific debate (Pittman & Steiner, 2019). It is developed as a result of interactions between neurobiological, psychological predisposing variables, moderating/mediating variables such as affective aspects, cognitive aspects (Flayelle, Maurage, Vögele, Karila & Billieux, 2019). However, at present, research on the role of the different components of this model with regard to binge watching is very limited. It would also be important to explore the role of impulsivity, which has been related to several problematic addictive behaviors such as alcohol and drug abuse (Flayelle, Maurage & Billieux, 2017) (Exelmans & Van den Bulck, 2017). Due to difficulties in focusing, impulsive individuals are less likely to think about or plan for the future. Apart from impulsivity, previous research has related further personality traits to binge-watching of crime thrillers. For example, Tóth-Király, et al. reported that neuroticism, extraversion, and agreeableness were positively related to the time spent binge-watching and problematic series watching, while conscientiousness appeared as a protective factor that was negatively correlated to binge-watching (Tóth-Király, Bőthe, Tóth-Fáber, Hága & Orosz, 2017). However, the independent contribution of these variables remains unclear so far. Against this background, the aim of the present study was to enhance our understanding of the unique association of personality traits (i.e., neuroticism, extraversion, agreeableness, openness, and conscientiousness) and impulsivity to crime thrillers binge watching.

The aim of research was to determine association of Personality traits and Impulsivity in individuals with Crime thrillers Binge-Watching Behaviour. The objectives was: 1) To estimate the proportion of Personality traits in individuals with Crime thrillers Binge-Watching Behaviour. 2) To determine the factors associated with Impulsivity in individuals with Crime thrillers Binge-Watching Behaviour.

Method

Participants

This research was conducted using quantitative approach as the main approach to test the research objectives. Quantitative approaches used questionnaire methods to accurately measure the variables of personality traits, impulsivity and loss of control. The design of this study is cross-sectional design, because in this study the measurement of each variable was done once.

160 participants (92 males and 68 females) with a mean age of 25.67 years were recruited via different online social media groups on Facebook and other platforms (Netflix, Instagram groups of web series). Ethical and scientific review committee permission was taken for this study. One hundred and thirty participants reported a degree in higher education (bachelor, master) as their highest level of education; thirty participants reported a high school degree. Eighty-two participants reported to be employed or self-employed and seventy-eight to be jobless.

Sampling Procedure

In this study, the sample that became the survey participants used a non-probability sampling design. Researchers disseminated online questionnaires with convenience sampling techniques that are sampling techniques by selecting participants who were easy to get and willing to become research participants with informed consent.
Sample size was calculated at alpha error 0.05 and study power 90% using the formula for two means of openness score as the study done by sabine steins et al on “Binge-Watching Behaviour: The Role of Impulsivity and Depressive Symptoms”

\[
n = \frac{2(z_{1-\alpha/2} + z_{1-\beta})^2 \times \sigma^2}{(\mu_1 - \mu_2)^2} = \frac{2(1.96+1.28)^2 \times 9}{1.54^2} = 80
\]

Where,
- \(n\) = Sample size
- \(z_{1-\alpha/2}\) = Standard normal deviate for alpha error (taken as 1.96 for alpha error 0.05)
- \(z_{1-\beta}\) = Standard normal deviate for beta error (taken as 1.28 for 90% study power)
- \(\sigma^2\) = pooled variance of the two population. As it is not known, it is replaced by \(s^2_p\).

\[
s^2_p = \frac{s_1^2 + s_2^2}{2}
\]

Where, \(s_1^2\) and \(s_2^2\) = the variances of the two samples.
- \((s_1^2\) is taken as 9 as calculated from findings of sabine steins et al)
- \(\mu_1 - \mu_2\) = The difference between the two means of openness score in non binge and binge watching behaviour.
- [1.54 as reported by sabine steins et al]. Sample size was calculated to be a minimum of \(n=80\) subjects in each group

**Procedures**

This research gained approval of Institutional Ethical Committee of Dr SN Medical College, Jodhpur, Rajasthan, India. After providing informed consent, questionnaires on demographic information, TV series watching, impulsivity, and the Big 5 personality traits were administered via an online platform. The time required for the survey was approximately 15 minutes. The data collection process was held on a timespan of 3 months, starting from 12th August 2021 to 12th November 2021.

**Instruments**

**Impulsivity the Barratt Impulsiveness Scale-15** was administered in the present study to assess trait impulsive behavior. “The Barratt Impulsiveness Scale-15 comprised 15 items answered on a 4-point Likert scale ranging from 1 (= never/rarely) to 4 (= always/very often) resulting in a maximum score of 60 (Meule, Vögele & Kübler, 2011).

**Personality Traits** This scale which is a short version of big 5 personality inventory comprising of 15 items was used to assess the personality traits on a 5-point Likert scale (Rammstedt & John, 2005).

**Binge-Watching Behaviour** :Number of maximum episodes at least one TV serials or series involving crime thriller in one sitting in last 3 months viewed by participants were determined. Binge watch of crime thrillers included the definition of “more than 2 episodes in one sitting in last 3 months”. (Sabine Steins-Loeber, Theresia Reiter, Heike Averbeck, et al. 2014) Steins-Loeber, Reiter, Averbeck, Harbarth & Brand, 2020).

**Subscale of Binge-watching Effects Scale [BWES]** from three subscales: loss of control, neglect of duties and habit according to the items loaded on these scales, “loss of self-control subscale was taken to assess the craving and negative consequences with regard to crime thriller binge watching”. The answers were given on a 6-point Likert
scale ranging from 1 (= strongly disagree) to 6 (= strongly agree) (Sabine Steins-Loeber, Theresia Reiter, Heike Averbeck, et al. 2020).

**Design or Data Analysis**

In this research, quantitative data of personality traits variables, impulsivity variables and loss of control obtained through questionnaires were analyzed using statistical programs. The data analysis phase of statistical calculations was done to answer research questions. This study will perform analytical techniques using descriptive statistical analysis. Descriptive analysis techniques to provide an overview of demographic data, frequency, percentage, mean, standard deviation and maximum and minimum scores of participants. Statistical analyses were performed using epi info 7 software. Descriptive analyses were performed to describe relevant variables such as means, standard deviations, frequencies, or percentages with tests of significance like t-test.

**Result And Discussion**

**Result**

Table 1. Characteristics of Participants

<table>
<thead>
<tr>
<th>Number</th>
<th>160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male 92</td>
</tr>
<tr>
<td></td>
<td>Female 68</td>
</tr>
<tr>
<td>Mean Age</td>
<td>25.67±2.1 years</td>
</tr>
<tr>
<td>Education</td>
<td>10th std (11) 12th std (19)</td>
</tr>
<tr>
<td></td>
<td>Graduate(130)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Unemployed (78)</td>
</tr>
<tr>
<td></td>
<td>Employed(82)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Married(63) Unmarried(97)</td>
</tr>
</tbody>
</table>

Table 2. Characteristics of Participants Reporting Binge-Watching and Those Reporting no Binge-Watching of Crime Thrillers

<table>
<thead>
<tr>
<th></th>
<th>Participants reporting binge_ watching of crime thrillers</th>
<th>Participants reporting no binge_ watching of crime thrillers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>80(50%)</td>
<td>80(50%)</td>
</tr>
<tr>
<td>Female</td>
<td>36(52.9%)</td>
<td>32</td>
</tr>
<tr>
<td>Male</td>
<td>44(47.8%)</td>
<td>48</td>
</tr>
<tr>
<td>Age, years, mean (SD)</td>
<td>25.25 (2.4)</td>
<td>28.42 (1.48)</td>
</tr>
<tr>
<td>Impulsivity mean (SD)</td>
<td>30.33 (4)</td>
<td>29.50 (2.20)</td>
</tr>
<tr>
<td>Extraversion mean (SD)</td>
<td>14.06 (1.77)</td>
<td>16.5 (3.03)</td>
</tr>
<tr>
<td>Agreeableness mean (SD)</td>
<td>10.92 (1.05)</td>
<td>12.19 (1.3)</td>
</tr>
<tr>
<td>Conscientiousness mean (SD)</td>
<td>12.7 (2.42)</td>
<td>13.30 (2.07)</td>
</tr>
<tr>
<td>Neuroticism mean (SD)</td>
<td>13.4 (1.79)</td>
<td>11.30 (2.1)</td>
</tr>
<tr>
<td>Openness mean (SD)</td>
<td>18.30 (1.08)</td>
<td>18.57 (2.06)</td>
</tr>
</tbody>
</table>

Table 3. Loss of Self-Control in Participants Reporting Binge Watching of Crime Thrillers.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of self-control subscale (mean score)</td>
<td>26.5(2.1)</td>
<td>29.5(2.31)</td>
</tr>
</tbody>
</table>
Crime thrillers binge-watching in the last 3 months as indicated by watching at least once > 2 episodes of one crime/thriller series in one sitting was reported by 80 participants (50%) with female predominance(52.9%) and a mean age of 25.2(S.D.2.4) years. The mean maximal number of episodes of one series that were watched in one sitting was 6.31. Binge watchers compared to non-binge-watchers did not differ with regard to sociodemographic Profile (p value >.05). With regard to the personality trait variables, binge-watchers compared to non-binge watchers were found to have higher neuroticism, less openness and less agreeableness (p value <.05), while all other differences with no statistical significance. Impulsivity (BIS-15), mean (SD) score was found to be higher 30.33(4) in crime thrillers binge watching as compared to non binge watchers.

Loss of self Control subscale score was found to be higher in female gender 29.5(mean score) as compared to male gender indicating negative consequences in female gender with more severe loss of control.

Discussion

The aim of the present study was to assess impulsivity and Big 5 personality traits neuroticism, conscientiousness, extraversion, agreeableness, and openness in binge_ watching involving crime thrillers. Our results suggest that impulsivity and personality traits need to be considered as contributing to possible problematic crime thrillers binge-watching. Thus, higher scores of impulsivity were associated with crime thrillers binge-watching.

The study done by Steins-Loeber, S., Reiter, T., Averbeck, H., Harbarth, L., & Brand, M. (2020). Binge-Watching Behaviour: The Role of Impulsivity and Depressive Symptoms was aimed to assess depressive symptoms, impulsivity and their potential interaction among individuals of binge-watching along with the possible association of the Big 5 personality traits. The study concluded that impulsivity and depressive symptoms need to be considered as different pathways independently contributing to possible problematic binge-watching. Higher scores of impulsivity were associated with both loss of control over binge-watching and negative consequences. The present study correlated with the mentioned study findings for interaction of impulsivity and personality traits in individuals with binge watching of crime thrillers. The mentioned study findings were in relation to binge watching not specified to crime thrillers type. However, correlation of these findings further confirms the specificity of the pathways in relation to binge watch of crime thrillers.

There is a strong association between impulsivity and substance-use disorder or gambling disorder as reported in many studies. However, impulsivity and other personality traits have been found in other behavioral addictions also. In the study done by Riddle et al impulsivity was found to be strongly associated with binge watching (Riddle, Peebles, Davis, Xu & Schroeder, 2018). The present study was particularly focused on crime thrillers binge watching which is different from previous studies which considered behavioural addictions in non specific way without reference to a particular type of behaviour.

The finding that females(52.9%) as compared to males(47.8%) were found to have binge_watching of crime thrillers support the notion of female sensitivity for the development of problematic specific behavioral patterns. This finding is replicated in various studies where females achieved higher scores for negative consequences due to behavioral addictions. These findings indicate that gender differences might affect the development of various problematic behavioral patterns.

In studies that reported personality traits, conscientiousness has been considered as a defensive factor in the development of behavioral addictions and binge watching (Billieux, Gay, Rochat & Van der Linden, 2010). In the present study, conscientiousness remained a protecting factor against binge watching involving crime thrillers. Higher neuroticism was found in individuals with binge watching as compared to non binge -watching. Although
various studies established the conscientiousness as a defensive factor but neuroticism was not particularly focused for crime thrillers binge watching which has been done in this study.

The study done by Toth-Kiraly et al. concluded that high-engagement viewers had higher neuroticism scores than the other groups. In the present study, the contribution of neuroticism is positively correlated with regard to binge-watching. However, further studies are needed to take into account other personality traits in detail to enhance our understanding regarding multiple variables relationship for dysfunctional watching of crime thrillers in everyday life. In the recent studies of addiction research, impulsivity, negative mood, emotional dysregulation are considered as chief contributors for non-behavioral addictions and behavioral addictions with impact over maintenance of problematic behavioral patterns (Andreassen et al., 2013) (Zhou, Li, Li, Wang & Zhao, 2017) (Shim & Kim, 2018) (Orsal, Orsal, Unsal & Ozalp, 2013) (Kraut et al., 2002) (Czapla et al., 2015). The present study was correlated with certain findings of impulsivity, neuroticism and conscientiousness with earlier research findings of binge watching behaviour but emphasis has been on crime thrillers which can diversify the research.

Some critical aspects should also be acknowledged with findings of the present study. 50% of the participants assessed in the present study reported binge-watching based on the definition. However, it is important to consider the binge-watching not to rely on the sole criterion of the number of episodes watched in one sitting, but including the regularity of this behavior or, maybe even more important. Future studies are needed for differentiation of binge-watching as a leisure activity from binge-watching as a problematic behavioral pattern.

**Conclusion**

The results of the present study suggest that crime thrillers as binge-watching is a highly prevalent consume pattern of TV series, but that it is important to differentiate between the time spent binge-watching and adverse consequences. Impulsivity and personality traits seem to be important pathways for crime thrillers binge watching, neuroticism is higher in binge watching while conscientiousness seems protective factor. However, longitudinal studies are warranted to clarify the nature of the individual characteristics and the role of other factors that might put individuals at risk for behavioral addictions.

**Limitations**

As participants were recruited via online social media platform limiting the generalization of study results. Unequal gender distribution with a higher proportion of male participants. The study design was cross-sectional and longitudinal studies are required to assess the causality of the observed results in this study.

**Acknowledgements**

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**References**


